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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,318	10/14/2003	Xinggao Fang	5682A	5027

7590 02/06/2007
John E. Vick, Jr.
Legal Department, M-495
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Spartanburg, SC 29304

EXAMINER

MATZEK, MATTHEW D

ART UNIT	PAPER NUMBER
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1771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/685,318	Applicant(s) FANG ET AL.	
	Examiner Matthew D. Matzek	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-12, 14-16, 18-23, 25-32 and 35 is/are pending in the application.
- 4a) Of the above claim(s) 12, 14-16, 18-23, 25-32 and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/10/2006 has been entered.

Response to Arguments

2. Applicant's arguments, see Remarks, filed 11/10/2006, with respect to the rejection(s) of claim(s) 1-8, 10 and 11 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made below. Claims 1-8, 10-12, 14-16, 18-23, 25-32 and 35 are currently pending. Claims 12, 14-16, 18-23, 25-32 and 35 have been withdrawn. Claims 1-8, 10 and 11 are currently active. The obvious double patenting rejections made in view of applications 10/785,218 and 10/780,976 have been withdrawn due to their amendment.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-3, 5-8, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dams et al. (US 5,453,540) in view of Bullock et al. (US 6,251,210).

a. Dams et al. teach a fluorochemical composition comprising a fluorinated compound, wherein the fluorinated compound comprises (i) fluorochemical oligomeric portion, (ii) an organic moiety, and a (iv) group that imparts stain release when the

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composition is applied to a fibrous substrate (abstract). The (i) fluorochemical oligomeric portion is bonded to the (ii) organic moiety via a (iii) hydrophobic crosslinking isocyanate-derived group (col. 4, lines 1-34). The fluorochemical oligomeric portion may be an acrylate, methacrylate, or vinyl ether (col. 14, line 51-col. 15, line 13). The composition is to be used on textiles (col. 23, lines 34-42). When applied to certain textiles and fabrics it is preferred that the treated article comprise about 0.1 to 1% by weight of the fluorinated compound based on the weight of the untreated substrate (col. 22, lines 1-4). The invention of Dams et al. is silent as to the use of an antimicrobial.

b. Bullock et al. disclose a fluorochemical treated textile fabric comprising one or more antimicrobial agents, fluoropolymers, and cross-linked resins (col. 4, lines 42-44, col. 12, lines 7-31). The fluorochemicals provide water repellance and stain resistance (col. 12, lines 9-14). Claims 5 and 6 are rejected as the applied patent discloses that the anti-microbial agent may be "any substance or combination of substances that kills or prevents the growth of a microorganism and includes antibiotics, antifungal, antiviral, and antialgal agents, which includes triclosan and ZINC OMADINETM (col. 11, lines 50-59). Zinc pyrithione is the generic name for ZINC OMADINETM. The crosslinking resins and the associated crosslinkers of the instant application are disclosed by the applied patent (col. 12, lines 25-41). Bullock et al. provide for the fluorochemical containing repellent component in that the reference calls for a second coating of the fluorochemical composition to increase repellency (col. 14, lines 61-65). Claim 10 is rejected as Dams et al. provide for the composition of the repellent component. Claim 11

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is rejected as the secondary coating is to be applied to only one side of the fabric (Abstract).

c. Since Dams et al. and Bullock et al. are from the same field of endeavor (i.e. fluorochemical-treated fabrics), the purpose disclosed by Bullock et al. would have been recognized in the pertinent art of Dams et al.

d. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have modified the invention of Dams et al. with the biocide of Bullock et al. with the motivation of imparting the textile with anti-microbial properties.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dams et al. (US 5,453,540) in view of Bullock et al. (US 6,251,210) as applied to claim 3 above, and further in view of Das et al. (US 5,464,897). The disclosures of Dams et al. and Bullock et al. are silent as to the use of blocked isocyanates as crosslinking agents, but Dams et al. do teach the use of unblocked isocyanates as such.

Dams et al. disclose the claimed invention except that it uses unblocked isocyanates as a crosslinking agent instead of unblocked isocyanates, Das et al. shows that blocked isocyanates possess an equivalent structure known in the art (col. 7, lines 19-34). Therefore, because these two crosslinking agents were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute unblocked isocyanates for blocked isocyanates.

Double Patenting

5. Claims 1-8, 10 and 11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 7, 24, 25 and 29-34 of

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compending Application No. 10/659,900. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both teach a fluorochemical soil release component, antimicrobial, hydrophobic crosslinking agent and a fluorochemical repellent component.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mdm *MDM*



Norca L. Torres-Velazquez
Primary Examiner
Art Unit 1771